

ABSTRACT

Natural and modified neurotoxins and isolated neurotoxin compositions are described. The neurotoxins may include one or more structural modifications, wherein the structural modification(s) alters the biological persistence, such as the biological half-life and/or a biological activity of the modified neurotoxin relative to an identical neurotoxin without the structural modification(s). In one embodiment, methods of making the modified neurotoxin include using recombinant techniques. In some embodiments, methods of using the modified neurotoxin to treat conditions include treating various disorders, neuromuscular ailments and pain.